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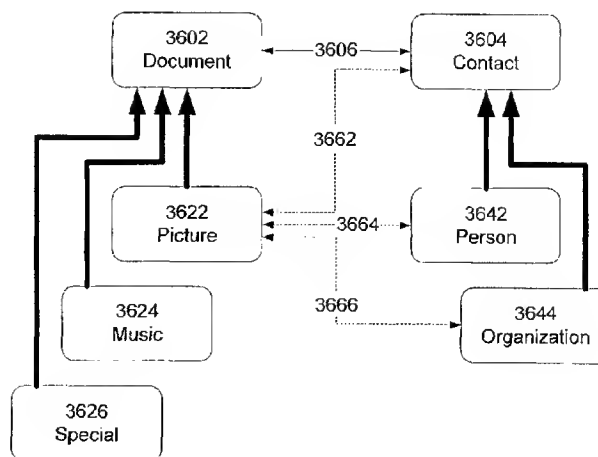
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[Continued on next page]

(54) Title: SYSTEMS AND METHODS FOR EXTENSIONS AND INHERITANCE FOR UNITS OF INFORMATION MANAGEABLE BY A HARDWARE/SOFTWARE INTERFACE SYSTEM



(57) Abstract: By modeling real-world application objects with complex structures, behaviors, and operations described by a schema which is enforced by the hardware/software interface system, various embodiments of the present invention provide rich sub-typing functionality (3602, 3604, 3606, 3622, 3624, 3626, 3642, 3644) by extending Items using extensions which provide additional data structure to already existing items type structures. Extensions are strongly typed instances that cannot exist independently and must be attached to an item or a Nested element. Extensions are also intended to address multi-typing issues by enabling the overlap of type instances.

WO 2005/024666 A3

WO 2005/024666 A3



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A. CLASSIFICATION OF SUBJECT MATTER

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B. FIELDS SEARCHED

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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
NPL, IEEE, ACM, WEST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y, P	US 6,763,350 B2 (AGRAWAL et al.,) 13 July 2004, see the entire document.	1-42
Y, P	U 6,697,818 B2 (LI et al.,) 24 February 2004, see the entire document.	1-42

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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